

CLAIMS

What is claimed is:

- 1 1. A method for correlating request packets and reply packets during network  
2 analysis, comprising:
  - 3 (a) monitoring first information associated with at least one layer of a request  
4 packet that resides above a data link control layer thereof;
  - 5 (b) monitoring second information associated with at least one layer of a reply  
6 packet that resides above the data link control layer thereof;
  - 7 (c) correlating the request packet and the reply packet utilizing the first  
8 information and the second information; and
  - 9 (d) analyzing a network based on the correlated request packet and reply packet.
- 1 2. The method as recited in claim 1, wherein the first information and the  
2 second information include a key.
- 1 3. The method as recited in claim 2, wherein the key includes information at a  
2 remote procedure call layer.
- 1 4. The method as recited in claim 3, wherein the information is included in an  
2 XID field.
- 1 5. The method as recited in claim 1, and further comprising storing data  
2 associated with the request packet.
- 1 6. The method as recited in claim 5, wherein the data is stored in a hash table.
- 1 7. The method as recited in claim 6, and further comprising retrieving the data  
2 utilizing the second information associated with the reply packet.

- 1 8. The method as recited in claim 1, wherein the analysis includes decoding the  
2 request packet and the reply packet.
- 1 9. The method as recited in claim 8, wherein the network is analyzed based on  
2 the decoded request packet and the reply packet.
- 1 10. A computer program product for correlating request packets and reply  
2 packets during network analysis, comprising:  
3 (a) computer code for monitoring first information associated with at least one  
4 layer of a request packet that resides above a data link control layer thereof;  
5 (b) computer code for monitoring second information associated with at least  
6 one layer of a reply packet that resides above the data link control layer  
7 thereof;  
8 (c) computer code for correlating the request packet and the reply packet  
9 utilizing the first information and the second information; and  
10 (d) computer code for analyzing a network based on the correlated request  
11 packet and reply packet.
- 1 11. The computer program product as recited in claim 10, wherein the first  
2 information and the second information include a key.
- 1 12. The computer program product as recited in claim 11, wherein the key  
2 includes information at a remote procedure call layer.
- 1 13. The computer program product as recited in claim 12, wherein the  
2 information is included in an XID field.
- 1 14. The computer program product as recited in claim 10, and further comprising  
2 computer code for storing data associated with the request packet.

- 1 15. The computer program product as recited in claim 14, wherein the data is  
2 stored in a hash table.
- 1 16. The computer program product as recited in claim 15, and further comprising  
2 computer code for retrieving the data utilizing the second information  
3 associated with the reply packet.
- 1 17. The computer program product as recited in claim 10, wherein the analysis  
2 includes decoding the request packet and the reply packet.
- 1 18. The computer program product as recited in claim 17, wherein the network is  
2 analyzed based on the decoded request packet and the reply packet.
- 1 19. A system for correlating request packets and reply packets during network  
2 analysis, comprising:  
3 (a) means for monitoring first information associated with at least one layer of a  
4 request packet that resides above a data link control layer thereof;  
5 (b) means for monitoring second information associated with at least one layer  
6 of a reply packet that resides above the data link control layer thereof;  
7 (c) means for correlating the request packet and the reply packet utilizing the  
8 first information and the second information; and  
9 (d) means for analyzing a network based on the correlated request packet and  
10 reply packet.
- 1 20. A system for correlating request packets and reply packets during network  
2 analysis, comprising:  
3 (a) logic for monitoring first information associated with at least one layer of a  
4 request packet that resides above a data link control layer thereof;  
5 (b) logic for monitoring second information associated with at least one layer of  
6 a reply packet that resides above the data link control layer thereof;

- 7 (c) logic for correlating the request packet and the reply packet utilizing the first
- 8 information and the second information; and
- 9 (d) logic for analyzing a network based on the correlated request packet and
- 10 reply packet.

- 1 21. A method for correlating request packets and reply packets during network
- 2 analysis, comprising:
- 3 (a) reading a packet from a capture file;
- 4 (b) identifying a key associated with at least one layer of the packet that resides
- 5 above a data link control layer;
- 6 (c) determining whether the packet is a request packet or a reply packet;
- 7 (d) if the packet includes a request packet:
- 8 (i) storing data associated with the request packet in a hash table
- 9 utilizing the key as an index into the hash table, and
- 10 (ii) decoding the request packet;
- 11 (e) if the packet includes a reply packet;
- 12 (i) determining whether the reply packet includes the key,
- 13 (ii) if the reply packet includes the key, retrieving the data associated
- 14 with the request packet from the hash table utilizing the key,
- 15 (iii) correlating the reply packet with the request packet associated with
- 16 the data, and
- 17 (iv) decoding the reply packet;
- 18 (f) determining whether another packet exists in the capture file; and
- 19 (g) repeating (a)-(f) if it is determined that another packet exists in the capture
- 20 file.